

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF SOUTH CAROLINA
CHARLESTON DIVISION

John E. Haskins and Mary L. Haskins,)	Civil Action No. 2:15-cv-02086-DCN
)	
Plaintiffs,)	<u>DEFENDANT AIR & LIQUID</u>
)	<u>SYSTEMS CORPORATION'S</u>
vs.)	<u>DAUBERT MOTION TO EXCLUDE</u>
)	<u>SPECIFIC CAUSATION OPINION</u>
3M Company, et al.,)	<u>TESTIMONY OF PLAINTIFFS'</u>
)	<u>EXPERTS</u>
Defendants.)	
)	

Defendant Air & Liquid Systems Corporation, Successor by Merger to Buffalo Pumps, Inc. (“Buffalo”), by and through its undersigned counsel, hereby respectfully moves this Court to preclude Plaintiffs’ experts from offering specific causation testimony against it.

INTRODUCTION

This Motion is based on two grounds. First, none of Plaintiffs’ experts have offered specific causation testimony against Buffalo, either in their expert reports as they are required to do under Rule 26(a)(2), or during their depositions. Second, any attempt by Plaintiffs’ experts to offer specific causation testimony with respect to Buffalo through the so-called “every-exposure” opinion, or any substantially similar opinion,¹ should be excluded from trial under: (a) F.R.E. 403,

¹ The every-exposure opinion refers to the opinion that each and every exposure to asbestos sustained by an individual contributes to cause a later-diagnosed disease. That opinion is often expressed as “each and every breath of asbestos-containing air contributes,” “each and every inhaled asbestos fiber contributes,” there is “no safe level” of asbestos exposure, “each and every exposure above background contributes,” “each significant, special, or occupational exposure contributes,” and “the cumulative dose caused the disease.” Though the wording varies, the meaning does not. *See Vedros v. Northrop Grumman Shipbuilding, Inc.*, No. 11-1198, 2015 U.S. Dist. LEXIS 106066, at *12 n.2 (E.D. La. Aug. 4, 2015) (“The theory that Defendants refer to [as the “Every Exposure theory”] has other names, including ‘No Safe Level of Exposure,’ ‘Each

because it has no probative value and there is a high risk of confusing and misleading the jury; and (b) F.R.E. 702, because the opinion will not be not helpful to the jury, and it does not meet the standards set forth in *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579 (1993).

This opinion, which is frequently attempted by experts in asbestos litigation, has been excluded by courts across the country for numerous reasons. *See, e.g., Yates v. Ford Motor Co.*, 113 F. Supp. 3d 841, 846 (D.N.C. June 28, 2015) (“[A]pplying the Daubert factors, courts have found that the theory cannot be tested, has not been published in peer-reviewed works, and has no known error rate.”) (citing cases); *id.* (“Numerous courts have excluded expert testimony or evidence grounded in this theory, reasoning that it lacks sufficient support in facts and data.”) (citing cases); *Vedros v. Northrop Grumman Shipbuilding, Inc.*, No. 11-1198, 2015 U.S. Dist. LEXIS 106066, at *18 (E.D. La. Aug. 4, 2015) (same); *Bell v. Foster Wheeler Energy, Corp.*, No. 11-1198, 2016 U.S. Dist. LEXIS 138817, at *9-10 (E.D. La. Oct. 5, 2016) (“By now, the deficiencies of the ‘each and every exposure’ theory of causation in asbestos exposure cases have been extensively discussed and will not be repeated here. . . . Suffice it to say, the Court continues to be of the view that the each and every exposure theory is not an acceptable approach for a causation expert to take because it is nothing more than the ipse dixit of the expert.”) (citations omitted). The theory is typically offered by plaintiffs’ experts to fulfill their burden of proving specific causation. *See, e.g., Fisher v. Pelstring*, 817 F. Supp. 2d 791, 814 (D.S.C. 2011); *see also Zellers v. NexTech Northeast, LLC*, 533 Fed. Appx. 192, 196 n.6 (4th Cir. 2013) (“In toxic tort

and Every Exposure,’ ‘Any Exposure,’ and ‘Single Fiber.’ All theories have as their basis the principle that all exposures to asbestos should be included as a cause of mesothelioma because there is no way to know which exposures caused it and which ones did not.”); *see also Bell v. Foster Wheeler Energy, Corp.*, No. 15-6394, 2016 U.S. Dist. LEXIS 138817, at *11 (E.D. La. Oct. 5, 2016) (“The Court sees no material difference between the ‘every exposure’ theory and the ‘every significant exposure’ theory.”) (citing *Vedros*).

cases, in order to carry the burden of proving a plaintiff's injury was caused by exposure to a specified substance, the plaintiff must demonstrate the levels of exposure that are hazardous to human beings generally as well as plaintiff's actual level of exposure. . . . These two levels of causation are known as 'general causation' and 'specific causation.'") (internal quotations and citations omitted).²

As detailed herein, this Motion is not based solely on a *Daubert* challenge. Instead, Buffalo also submits that the every-exposure opinion offered by Plaintiffs' experts, whether or not scientifically sound, should be excluded because it is not legally sufficient to establish causation, regardless of the law that applies to this matter. *See, e.g., Lindstrom v. A-C Prod. Liab. Trust*, 424 F.3d 488, 492 (6th Cir. 2005) (holding, under maritime law, that to establish causation, a plaintiff must show that (1) he was exposed to a defendant's product, and (2) the product was a substantial factor in causing the injury suffered); *Henderson v. Allied Signal, Inc.*, 373 S.C. 179, 185, 644 S.E.2d 724, 727 (2007) ("To support a reasonable inference of substantial causation from circumstantial evidence, there must be evidence of exposure to a specific product on a regular basis over some extended period of time in proximity to where the plaintiff actually worked.") (internal quotations and citations omitted).³ Indeed, the every-exposure opinion has already been rejected

² Because Plaintiffs here cannot meet that burden, as set forth more fully herein, Buffalo will also move for summary judgment in relation to this Motion at a later time, pursuant to the Court's Scheduling Order.

³ To the extent this Court determines that there is a conflict between maritime law and South Carolina law, Buffalo respectfully submits that the Court should apply maritime law. *See, e.g., Conner v. Alfa Laval, Inc.*, 799 F. Supp. 2d 455, 466 (E.D. Pa. 2011) (Robreno, J.) (holding that "maritime law govern[s] those claims involving plaintiffs who were sea-based Navy workers so long as the allegedly defective product was produced for use on a vessel," while state law governs claims "[w]here the asbestos claims asserted stem from predominantly land-based Navy work"); *see also Dandridge v. Crane Co.*, No. 2:12-cv-00484, 2016 U.S. Dist. LEXIS 9378, at *5 (Jan. 27, 2016) (Norton, J.) (noting, where all of the alleged exposure occurred on a sea-based Navy ship, that "the parties agree that this case falls within the court's admiralty jurisdiction; therefore,

under maritime law because it undermines the applicable causation standards. *See Lindstrom*, 424 F.3d at 493 (holding that the every-exposure opinion is insufficient as a matter of law to make a causation finding as to any particular defendant). Only if Plaintiffs can show that the opinion is legally sufficient should the Court analyze this opinion under *Daubert* and follow the growing weight of federal authorities excluding the opinion.

RELEVANT FACTS

In this asbestos personal injury case stemming from the alleged mesothelioma of Plaintiff John E. Haskins (“Mr. Haskins”), Plaintiffs have named three (3) experts: (1) Dr. Arnold Brody, Ph.D., a molecular biologist, (2) Carlos Bedrossian, M.D., a physician of pathology, and (3) Steve Compton, PhD., a physicist and microscopist.⁴ Drs. Brody and Bedrossian both touch on issues of causation, and their attempted causation opinions are thus the subject of this Motion. Dr. Compton does not testify about causation or “risk of disease,” as he admitted at his deposition, and his opinions, while somewhat problematic in their own right,⁵ are not the subject of the present Motion.

Buffalo is informed and believes that these experts may attempt to offer specific causation opinions. As detailed below, however, they have not been tendered to offer such opinions as to Buffalo and are thus prohibited from offering those opinions under Rules 26(a)(2) and 37(c)(1). Plaintiffs may also try to have their experts offer the every-exposure opinion, in varying ways, to meet their specific causation burden of proof in this toxic tort case, by essentially arguing that *all*

maritime law applies”). That issue will be addressed more fully in this Defendant’s motion for summary judgment.

⁴ *See* Pls’ Identification of Expert Witnesses (June 20, 2016) [ECF No. 141].

⁵ Buffalo is concurrently filing a Motion to Limit Dr. Compton’s testimony. The issues in that Motion are not pertinent to this Motion.

exposures to asbestos contributed to cause Mr. Haskins's disease. In fact, Plaintiffs' experts appear to do just that in their reports and during their depositions, to varying degrees.

For example, Dr. Brody expressed this opinion in his report, stating: "Once a person develops an asbestos-related cancer, it is not possible to exclude any of the person's above-background exposures to asbestos from the causal chain. From a scientific and biological point of view, *each and every exposure to asbestos that an individual with mesothelioma experienced in excess of a background level contributes to the development of the disease.*"⁶ Dr. Brody also argues the inverse of this statement with respect to causation, asserting that "there is no safe level of exposure to asbestos."⁷ Notably, this exact language was recently excluded in a North Carolina case where Dr. Brody was offered as an expert. *See Yates*, 113 F. Supp. 3d at 846-48.

Dr. Bedrossian also expressed this opinion in his report⁸ and at his deposition.⁹ Specifically, Dr. Bedrossian asserts in his Report "that Mr. Haskins' total and cumulative exposure to asbestos, from any and all products, containing any and all fiber types was a significant contributing factor to his risk of premature death from complications of his asbestos-related cancer."¹⁰ Dr. Bedrossian also noted in his Report that "[t]he carcinogenic effect of asbestos is cumulative, regardless of the source of the exposure" and "[t]otal cumulative dose has been consistently found to be the best indicator of risk."¹¹ Similarly, during his deposition, Dr. Bedrossian summarized his causation opinions by reiterating the point that the "cumulative dose

⁶ See Brody Report at 23-24 (emphasis added), a true and correct copy of which is attached at Exhibit 1.

⁷ See *id.* at 24.

⁸ See Bedrossian Report, dated March 18, 2016, a true and correct copy of which is attached as Exhibit 2.

⁹ See Carlos Bedrossian Dep., Sept. 20, 2016, a true and correct copy of which is attached as Exhibit 3.

¹⁰ See Bedrossian Report at 6, Ex. 2.

¹¹ See *id.* at 5.

of asbestos . . . is the cause of the mesothelioma” because he cannot “pinpoint one exposure or exonerate another.”¹² Notably, these opinions are especially troubling because Dr. Bedrossian demonstrated at his deposition that (1) he is not familiar with the underlying exposure facts in this case,¹³ and (2) what little he does know about the underlying facts came from information he was given in a summary provided by Plaintiff’s counsel.¹⁴ These issues highlight the ipse dixit nature of Dr. Bedrossian’s causation opinions. *See, e.g., Bell*, 2016 U.S. Dist. LEXIS 138817, at *9-10 (“Suffice it to say, the Court continues to be of the view that the each and every exposure theory

¹² *See* Bedrossian Dep., Ex. 3, at 30:9 - 31:18 (“Q. We also talked about your testimony about whether you can say which particular exposure may have actually caused the cellular changes -- or which particular exposure may have resulted in fiber release that -- where the fibers reached the pleura and caused the cellular changes that eventually caused the mesothelioma. And I'm showing you, and I think we talked with you yesterday, about a deposition that you gave on the Chesser, C H E S S E R, case dated February 24, 2016, and I'm going to -- I have to share it with you a little bit. There was a question about *whether you could say exactly which exposure from a product actually physically caused the disease, and you stated it is not possible to pinpoint the exposure, but it's possible to conclude that exposure to the product contributed to the total dose, the so-called cumulative dose of asbestos, and it is the cumulative dose that is the cause of the mesothelioma.* Is that -- A. *That stands today, yes.* Q. Right. And then on Page 84, you asked -- there was further discussion about it. You further state, *I cannot pinpoint one exposure or exonerate another, so that's why our conclusion is the total dose that the patient underwent from each product that contained asbestos* that were in his surrounding where he worked for a long period of time repeatedly in close proximity to it. *Those exposures to that product contributed to the total cumulative dose, and it is the total cumulative dose that is the cause of the mesothelioma?* A. *Correct. I am stating the same thing in a different way.*”) (emphasis added).

¹³ *Compare id.* at 26:1-11 (demonstrating that Dr. Bedrossian does not know which engine room Mr. Haskins worked in while on board the USS Coney); *with* Deposition of John Haskins, Sept. 17, 2015, a true and correct copy of which is attached as Exhibit 4, at pp. 18-20 (repeatedly testifying that he was only assigned to the forward engine room); *compare also* Bedrossian Dep., Ex. 3, at 26:12-15 (“Q. All right. And so do you have any information about how long the overhaul [that Mr. Haskins was involved in at the Charleston Navy Shipyard on board the USS Coney] lasted? A. It lasted several months. Almost a year, I think.”) *with* Sept. 17, 2015 Haskins Dep., Ex. 4, at pp. 21, 162 (testifying that the overhaul lasted three months).

¹⁴ *See* Bedrossian Dep., Ex. 3, at 7:23 – 8:7 (“The next [exhibit] is a summary of the work history which will be Exhibit 4. (Bedrossian Deposition Exhibit No. 4 marked as requested.) BY MR. SWELT: Q. And it's double spaced about a half a page. Did you rely on this when you wrote your report as the work history for Mr. Haskins? A. Yes, I did. Along with the cover letter and communications I had with Motley and Rice.”).

is not an acceptable approach for a causation expert to take because it is nothing more than the ipse dixit of the expert.”) (citations omitted).

As set forth more fully herein, Buffalo respectfully requests that the Court exclude any testimony of these experts related to the every-exposure opinion. This opinion, which has been excluded by numerous courts across the country over the past decade, must be excluded here because (1) it conflicts with well-settled causation standards in asbestos litigation and would thus be confusing or misleading to the jury and would have no probative value whatsoever, and (2) it is not reliable under Rule 702 and *Daubert*.

STANDARD OF REVIEW

This Court has carefully laid out the analysis for a Motion like the one at bar in recent years as follows:

Federal Rule of Evidence 702 provides:

A witness who is qualified as an expert by knowledge, skill, experience, training, or education may testify in the form of an opinion or otherwise if:

- (a) the expert’s scientific, technical, or other specialized knowledge will help the trier of fact to understand the evidence or to determine a fact in issue;
- (b) the testimony is based on sufficient facts or data;
- (c) the testimony is the product of reliable principles and methods; and
- (d) the expert has reliably applied the principles and methods to the facts of the case.

District courts serve as gatekeepers for expert testimony. The [C]ourt has a “special obligation” to ensure that expert testimony is relevant and reliable. *Kumho Tire Co. v. Carmichael*, 526 U.S. 137, 147, 119 S. Ct. 1167, 143 L. Ed. 2d 238 (1999).

Under *Daubert*, the [C]ourt must address two questions: first, whether the expert’s testimony is based on “scientific knowledge”; and second, whether the testimony “will assist the trier of fact to understand or determine a fact in issue.” 509 U.S. at 592. The first question is answered by assessing “whether the reasoning or methodology underlying the testimony is scientifically valid.” *Id.* at 592-93. Several nondispositive factors should be considered in determining the reliability

of a particular scientific theory or technique: whether it (1) can be and has been tested; (2) has been subjected to peer review and publication; (3) has a known or potential rate of error; and (4) has attained general acceptance in the pertinent scientific community. *See id.* at 593-94. In considering these factors, the focus “must be solely on principles and methodology, not on the conclusions that they generate.” *Id.* at 595. The factors are not exclusive; what factors are relevant to the analysis “depends upon the particular circumstances of the particular case at issue.” *Kumho Tire*, 526 U.S. at 150.

The second inquiry “goes primarily to relevance.” *Daubert*, 509 U.S. at 591. Relevance is determined by ascertaining whether the testimony is sufficiently tied to the facts of the case such that it will aid the jury in resolving a factual dispute. *Id.* at 593.

United States v. Eady, No. 2:12-cr-00415, 2013 U.S. Dist. LEXIS 124266, 5-7 (D.S.C. Aug. 30, 2013) (Norton, J.).

ARGUMENT

I. Plaintiffs’ Experts Have Not Offered Specific Causation Opinions in This Case.

In their reports, Drs. Brody and Bedrossian fail to make any specific reference to Buffalo products.¹⁵ They are thus prohibited from testifying that any Buffalo products specifically caused Mr. Haskins’s mesothelioma. *See* Fed. R. Civ. P. 26(a)(2), (requiring testifying experts to provide written reports containing, *inter alia*, “a complete statement of all opinions the witness will express and the basis and reasons for them”); *see also* Fed. R. Civ. P. 37(c)(1) (“If a party fails to provide information or identify a witness as required by Rule 26(a) or (e), the party is not allowed to use that information or witness to supply evidence on a Motion, at a hearing, or at a trial, unless the failure was substantially justified or is harmless.”).¹⁶

¹⁵ *See generally* Brody Report, at Ex. 1 and Bedrossian Report, at Ex. 2.

¹⁶ The exclusion of evidence under Rule 37(c)(1) for failure to make a disclosure required by Rule 26(a) is “self-executing” and “automatic” unless the failure to disclose is substantially justified or harmless. Fed. R. Civ. P. 37(c)(1); 1993 Amendments to Advisory Committee Notes to Fed. R. Civ. P. 37(c); *Campbell v. United States*, 470 Fed. Appx. 153, 156 (4th Cir. 2012).

Based on the fact that *none* of Plaintiffs' experts have articulated any defendant-specific causation opinions – including whether and how Mr. Haskins was allegedly exposed to asbestos from Buffalo products, and, if so, at what dose (or, at least, at some reasonable estimate for a range of doses) – and given Plaintiffs' experts' own admissions that an asbestos-related mesothelioma is a dose-response disease,¹⁷ those experts cannot offer specific causation opinions with regard to Buffalo. *See, e.g., Yates*, 113 F. Supp. 3d at 850 (“To prove that a given injury was ‘caused by exposure to a specified substance,’ [specifically including asbestos] a plaintiff must demonstrate ‘the levels of exposure that are hazardous to human beings generally’ and ‘the plaintiff’s actual level of exposure’”) (quoting *Westberry v. Gislaved Gummi AB*, 178 F. 3d 257, 263 (4th Cir. 1999)); *see also Zellers v. Nextech Northeast, LLC*, 533 F. App’x 192, 198 (4th Cir. 2013) (affirming exclusion of expert for failure to demonstrate plaintiff’s actual level of exposure); *cf. Hearn v. Snapka*, No. 13-11-00332, 2012 Tex. App. LEXIS 10788, at *20 (Tex. Ct. App. Dec. 28, 2012) (excluding Dr. Bedrossian’s every-exposure opinion for multiple reasons, including because “[a]lthough Bedrossian states that exposure to asbestos was necessarily a significant contributing factor to the development of appellant’s WDPM, he does not connect appellant’s WDPM to any specific defendant or any specific asbestos-containing product.”).

II. Any Attempt By Plaintiffs To Offer Specific Causation Opinions as to Buffalo Through the Every-Exposure Opinion Is Improper.

Because Plaintiffs' experts are not offering specific causation testimony as to Buffalo products by conducting an analysis of the exposure(s) and/or doses of asbestos that Mr. Haskins allegedly received in association with those products, Plaintiffs are left with the every-exposure

¹⁷ *See, e.g., Brody Report* at 23, Ex. 1 (“The asbestos-induced cancers are dose-response diseases, in that the more asbestos a person is exposed to, the more likely that person is to develop disease. In the case of a person who has developed an asbestos-related cancer, it is that individual’s cumulative dose which has caused the disease.”).

opinion to meet their specific causation burden.¹⁸ As noted below, however, that opinion is inadmissible and must be excluded, for several reasons.

A. The Every-Exposure Opinion Should Be Excluded Under F.R.E. 403 Because it Has No Probative Value, and it Would Serve Only to Confuse and Mislead the Jury Regarding Causation Standards.

It is well-established that under maritime law Plaintiffs must demonstrate substantial-factor causation before any defendant can be held legally responsible for their injuries. *See, e.g., Lindstrom*, 424 F.3d at 492 (holding that, under maritime law, plaintiff must show “that (1) he was exposed to defendant’s product, and (2) the product was a substantial factor in causing the injury suffered.”). South Carolina law carries at least as high a causation burden, generally requiring evidence of “exposure to a specific product on a regular basis over some extended period of time in proximity to where the plaintiff actually worked” -- referred to as the “frequency, regularity, and proximity test.” *Henderson*, 373 S.C. at 185, 644 S.E.2d at 727. Further, the exposure must be to friable, or airborne, asbestos. *Id.* (“Presence in the vicinity of static asbestos is not exposure to asbestos.”).¹⁹

As the Sixth Circuit Court of Appeals found in *Lindstrom*, the every-exposure opinion is insufficient as a matter of law to make a causation finding as to any particular defendant.

¹⁸ Plaintiffs may argue in response to this Motion that they will elicit specific causation opinion testimony from Dr. Bedrossian through the use of hypothetical questions, as Plaintiffs’ counsel attempted to do at Dr. Bedrossian’s deposition. *See* Bedrossian Dep., Ex. 3, at pp. 43-44. In addition to being outside the scope of Dr. Bedrossian’s Report, the use of such a hypothetical question will merely serve as an attempt to mask the every-exposure opinion, and it should be excluded for the same reasons as those articulated herein. Moreover, Plaintiffs’ counsel’s use of a hypothetical at Dr. Bedrossian’s deposition highlighted that it is not based on the facts in this case, and it should therefore also be excluded on that basis, as Buffalo will set forth in a later Motion in Limine.

¹⁹ Buffalo maintains that, in addition to the *Henderson* exposure burden, South Carolina law still also requires a plaintiff to meet the more traditional causation requirements of “causation in fact” or “but for” causation and “legal causation” by establishing foreseeability. *See, e.g., Small v. Pioneer Machinery, Inc.*, 329 S.C. 448, 494 S.E.2d 835 (Ct. App. 1997).

Lindstrom, 424 F.3d at 493. The opinion is incompatible with the substantial-factor-causation test because it effectively collapses two distinct legal elements into one. *Id.* (stating that if the opinion “that every exposure to asbestos, however slight, was a substantial factor in causing . . . disease” were accepted, then “the Sixth Circuit’s ‘substantial factor’ test would be meaningless”);²⁰ *see also Martin v. Cincinnati Gas & Elec. Co.*, 561 F.3d 439, 443 (6th Cir. 2009). In other words, the opinion is simply misleading, and it would serve only to confuse a jury about proper causation standards.

The United States District Court for the District of Utah recently reviewed the every-exposure opinion offered by an expert in another asbestos-related personal-injury lawsuit, holding that even if it were admissible under F.R.E. 702 (the court ultimately excluded it on those grounds), “the court would exclude Dr. Hammar’s testimony pursuant to Rule 403 of the Federal Rules of Evidence, because the probative value of such unsupported speculation by Dr. Hammar is substantially outweighed by the danger of unfair prejudice, as well as being confusing, and presenting a danger of misleading the jury.” *See Smith v. Ford Motor Co.*, No. 2:08-cv-630, 2013 U.S. Dist. LEXIS 7861, at *5 (D. Utah. Jan. 18, 2013).

As Judge Flanagan recently observed in the Eastern District of North Carolina while ruling on this precise issue (involving some of the same experts at issue here):

To prove that a given injury was “caused by exposure to a specified substance,” ***a plaintiff must demonstrate “the levels of exposure that are hazardous to human beings generally,” and “the plaintiff’s actual level of exposure.”*** *Westberry*, 178 F.3d at 263 (quotations omitted). Moreover, ***there must be a showing that the***

²⁰ One of the lower court decisions affirmed in *Lindstrom* properly held that the every-exposure opinion is, at heart, a legal conclusion, and a court cannot permit its introduction and simultaneously discharge its duty to apply the law of a jurisdiction using a substantial-factor test for causation: “This is a strict liability standard, which the law does not impose upon manufacturers of products containing asbestos. This argument would completely obviate the ‘substantial factor’ and the ‘proximate cause’ standards, which Sixth Circuit law directs [the court] to apply.” *Bartel v. John Crane, Inc.*, 316 F. Supp. 2d 603, 605 (N.D. Ohio 2004).

plaintiff's level of exposure is comparable to the levels of exposure that are hazardous as a general matter. See *id.*, (“[S]cientific knowledge of the harmful level of exposure to a chemical, plus knowledge that the plaintiff was exposed to such quantities, are minimal facts necessary to sustain the plaintiffs’ burden in a toxic tort case.”) (emphasis added) (quoting *Allen v. Pa. Eng’g Corp.*, 102 F.3d 194, 199 (5th Cir. 1996)); see also *Zellers v. NexTech Northeast, LLC*, 895 F. Supp. 2d 734, 742 (E.D. Va. 2012) (“‘Ruling in’ exposure to a particular substance as a possible cause of a patient’s medical condition requires (1) a reliable determination of the level of exposure necessary to cause the condition and (2) a reliable determination that the patient was exposed to the substance at this level.”).

The Fourth Circuit and other courts have ***applied these principles not only to assess the sufficiency of the evidence supporting plaintiff's case, but also to consider whether expert testimony on causation is reliable.*** See *Westberry*, 178 F.3d at 263; *Zellers v. NexTech Northeast, LLC*, 533 F. App’x 192, 198 (4th Cir. 2013) (affirming exclusion of expert for failure to demonstrate plaintiff’s actual level of exposure); *Roche v. Lincoln Property Co.*, 278 F. Supp. 2d 744, 754 (E.D. Va. 2003) (excluding expert on finding that he “lack[ed] any knowledge of the levels of exposure to mold required to manifest any symptoms.”); *Cavallo v. Star Enterprise*, 892 F. Supp. 756, 772 (E.D. Va. 1995) (excluding opinion when expert “could cite no studies or published literature to support adverse effects *from that level* of exposure to [the specific toxic agent].”), *aff’d* in relevant part, 100 F.3d 1150 (4th Cir. 1996). Such standards consistent with a “central tenet” in the science of the harmful effects of chemical and physical agents on organisms — “the dose makes the poison,” i.e. “all chemical agents are intrinsically hazardous, whether they cause harm is only a question of dose.” Bernard D. Goldstein and Mary Sue Henifin, “Reference Guide on Toxicology,” in *Federal Reference Manual on Scientific Evidence*, 636 (3d ed. 2011).

Yates, 113 F. Supp. 3d 841, 850-51 (emphasis added) (footnotes omitted). Consistent with the principles articulated above, applicable law demonstrates that “casual” or “minimal” exposure to a defendant’s product, unproven to cause disease, is never sufficient to support a finding of causation against that defendant. See *Lindstrom*, 424 F.3d at 492; *Henderson*, 373 S.C. at 185, 644 S.E.2d at 727. Yet the every-exposure theory is inconsistent with that basic principle.

The every-exposure opinion has one purpose: to establish the legally required element of causation, as detailed above. But it is simply insufficient to do so under the governing law (and as a matter of science, as discussed more fully herein). See, e.g., *Hearn v. Snapka*, No. 13-11-00332, 2012 Tex. App. LEXIS 10788, at *19 (Tex. Ct. App. Dec. 28, 2012) (holding that Dr.

“Bedrossian’s [every exposure] testimony conflicts with the legal standards applicable to this case.”). The opinion improperly encourages a jury not to engage in a critical assessment of the exposure and medical evidence to assess causation, as a jury must do. Instead, the opinion invites the jury to take a much easier route to a finding of causation: it encourages the jury to equate evidence of a *single exposure* with evidence of causation. This would be contrary to the governing legal standards, and it would prejudice Buffalo. Accordingly, the every-exposure opinion should be excluded under F.R.E. 403.

B. The Every-Exposure Opinion is Not Admissible Under F.R.E. 702 and The Standards Set Forth in *Daubert*.

The every-exposure opinion should also be excluded under F.R.E. 702 because it is not helpful to a jury and it does not satisfy the Supreme Court’s test in *Daubert*. Another district court made both these findings recently, and that Court’s analysis provides guidance here. *See Smith*, 2013 U.S. Dist. LEXIS 7861.

1. **The every-exposure opinion is not admissible because it does not even comply with the most basic principle of F.R.E. 702—it is not helpful to a jury.**

Plaintiffs’ experts will opine that any asbestos fibers inhaled by Mr. Haskins were capable of causing his disease because, Plaintiffs allege, there is no threshold of exposure below which there is no risk. These experts mistakenly conclude that because they cannot rule any particular exposure *out*, they can rule them all *in*.²¹ The *Smith* court aptly likens the every-exposure opinion to a similarly hasty conclusion in a hypothetical unsolved murder:

It is somewhat like a homicide detective who discovers a murdered man from a large family. Based on his and other detectives’ training and experience the detective knows that family members are often the killer in such cases. When asked if there are any suspects the detective says he cannot rule out any of the murdered

²¹ Dr. Bedrossian’s testimony, quoted above, that he cannot exonerate any exposure, is a perfect example of this idea.

man's relatives. This would be reasonable, but it would not allow the detective to attribute legal liability to every family member on the basis of such a theory.

Smith, 2013 WL 214378 at *3, 2013 U.S. Dist. LEXIS 7861, at *7-8. In this lawsuit, the jury will be tasked with determining legal liability; the every-exposure opinion is not helpful in performing that task. Thus, the opinion is inadmissible under the standards of F.R.E. 702. *Id.* 2013 U.S. Dist. LEXIS 7861, at *10, at (stating that the every-exposure opinion fails “with regard to the most basic purpose of Rule 702—that the expert’s opinion should be helpful to the jury”); *see also Yates*, 113 F. Supp. 3d at 856 (noting that the every-exposure opinion is “entirely circular and conclusory, and will not assist the jury”).

2. The every-exposure opinion fails under *Daubert*.²²

In *Daubert*, the Court held that a “trial judge must ensure that any and all scientific testimony or evidence admitted is not only relevant, but reliable.” *Id.* In order for an expert opinion to be reliable, the opinion must be “based on the ‘methods and procedures of science’ rather than on ‘subjective belief or unsupported speculation.’” *In re Paoli Railroad Yard Litigation*, 35 F.3d 717, 742 (3d Cir. 1994) (quoting *Daubert*, 509 U.S. at 589-90); *see also Zellers v. NexTech Northeast, LLC*, 533 Fed. Appx. 192, 197 (4th Cir. 2013) (“While it is true that there is no prohibition on utilizing multiple experts to establish various components of a party’s case, this does not change *Daubert*’s command that an expert’s testimony must be based on ‘more than subjective belief or unsupported speculation’”) (quoting *Daubert*). The proposed testimony must be based on “good grounds and appropriate validation must support it.” *Daubert*, 509 U.S. at 590. Importantly, the Court must evaluate the testimony with the understanding that “[t]he burden for

²² The every-exposure opinion has even been rejected by the Supreme Court of Pennsylvania under the less-restrictive *Frye* test. *See Betz v. Pneumo Abex LLC*, 615 Pa. 504, 44 A.3d 27 (2012). There is no reason this opinion should be accepted under *Daubert*.

establishing qualification, reliability, and helpfulness rests on the proponent of the expert opinion. . . .” *U.S. v. Frazier*, 387 F.3d 1244, 1260 (11th Cir. 2004). Here, Plaintiffs cannot meet this burden.

Again the *Smith* Court is helpful to the analysis. Like Dr. Bedrossian here, the expert witness in *Smith* opined that the plaintiff’s mesothelioma “was caused by his total and cumulative exposure to asbestos, with all exposures and all products playing a contributing factor.” *Smith*, 2013 U.S. Dist. LEXIS 7861, at *7. As the *Smith* court noted, however, that opinion is based on a complete “lack of facts and data,” and is supported by no scientific methodology. *Id.*, 2013 U.S. Dist. LEXIS 7861, at *6-7. Ultimately, the *Smith* court held that to offer a methodologically sound opinion on causation, an expert witness must show that the alleged exposure to the specific defendant’s product “constitutes proof of sufficient exposure to cause [the plaintiff’s] cancer on its own . . . or that such exposure amounted to more than an insignificant or de minimus factor in the development of the [plaintiff’s] disease.” *Id.*, 2013 U.S. Dist. LEXIS 7861, at *9. Just like in *Smith*, here, Plaintiffs’ experts offer no such analysis. Their proposed every-exposure opinions are inadmissible under *Daubert*. *See id.*; *see also Anderson v. Ford Motor Co.*, 950 F. Supp. 2d 1217, 1225 (D. Utah 2013) (holding that the “every exposure theory of causation does not meet the standards set by F.R.E. 702 and *Daubert* and must be excluded”); *Krik*, 76 F. Supp. 3d at 753 (“[T]he Court concludes that the ‘Any Exposure’ theory also is inadmissible given Krik’s experts’ wholesale failure to base their opinions on facts specific to this case.”). As one court aptly explained:

The Court agrees with [Defendant] that Dr. Hammar’s proposed specific causation opinions in this case are unreliable and inadmissible, essentially for the reasons articulated by the thoughtful opinions in *Smith*, *Anderson*, *Davidson*, and *Krik*. ***Although there may be no known safe level of asbestos exposure, this does not support Dr. Hammar’s leap to the conclusion that therefore every exposure [Plaintiff] had to asbestos must have been a substantial contributing cause of his***

mesothelioma. The Court agrees that this “is not an acceptable approach for a causation expert to take.” *Krik*, 2014 U.S. Dist. LEXIS 175983, 2014 WL 7330901, at *4, and it is “precisely the kind of testimony the Supreme Court in *General Electric Co. v. Joiner* . . . observed as being nothing more than the ‘ipse dixit of the expert.’” *Smith*, 2013 U.S. Dist. LEXIS 7861, 2013 WL 214378, at *2 (quoting 522 U.S. 136, 146, 118 S. Ct. 512, 139 L. Ed. 2d 508 (1997)). ***This kind of blanket specific causation opinion is not based on or tied to the specific facts and circumstances of any of [Plaintiff’s] exposures to asbestos and it elides any differences or nuances of duration, concentration, exposure, and the properties of the fibers to which he may have been exposed.*** The Court is not persuaded that such a one-size-fits-all approach is reliable expert testimony.

Comardelle v. Pa. Gen. Ins. Co., 76 F. Supp. 3d 628, 634 (E.D. La. 2015) (emphasis added).

It is well-established that in order to recover in a toxic tort case, a plaintiff must prove the *minimum* dose necessary to cause the injury alleged, as well as the plaintiff’s actual level of exposure to the toxic substance. *See Westberry*, 178 F.3d at 263; *Yates*, 113 F. Supp. 3d 841, 850-51; *see also McClain v. Metabolife Int’l, Inc.*, 401 F.3d 1233, 1241 (11th Cir. 2005) (citing *Mitchell v. Gencorp*, 165 F.3d 778, 781 (10th Cir. 1999)). Thus, when analyzing an expert’s methodology in an asbestos case, “the [C]ourt should pay careful attention to the expert’s testimony about the dose-response relationship.” *See McClain*, 401 F.3d at 1241 (citing *Mitchell*). The dose-response relationship provides invaluable information regarding the minimum degree of exposure necessary to cause the alleged injury. *Id.* “The expert who avoids or neglects this principle . . . casts suspicion on the reliability of his methodology.” *Id.*

The every-exposure opinion ignores the dose-response relationship. “Simply put, one cannot simultaneously maintain that a single fiber among millions is substantially causative, while also conceding that a disease is dose responsive.” *Betz*, 615 Pa. at 550, 44 A.3d at 56. As the *Smith* court recognized, “[n]umerous courts have examined and rejected expert testimony attempting to assert causation without assessing the dose and held the every exposure theory

lacking under *Daubert* and Rule 702.”²³ 2013 U.S. Dist. LEXIS 7861, at *12-13 (citing, *inter alia*, *Moeller v. Garlock Sealing Technologies, LLC*, 660 F.3d 950, 952 (6th Cir. 2011); *Borg-Warner Corp. v. Stephens*, 239 S.W.3d 304, 321 (Tex. App. Ct. 2010) (further citations omitted)).²⁴ This was one of the bases for a court’s rejection of Dr. Bedrossian’s every-exposure opinion. *See Hearn*, 2012 Tex. App. LEXIS 10788, at *20 (“Finally, Bedrossian’s testimony lacks any Defendant-specific evidence relating to the approximate dose to which the plaintiff was exposed. Bedrossian’s testimony is merely anecdotal evidence of ‘some exposure’ to asbestos, and it is insufficient to prove causation of asbestos-related disease.”) (internal quotations and citations omitted). The every-exposure opinion was also recently rejected by the United States District Court for the District of Columbia, which held that the opinion that there is “no safe level” of

²³ Other courts have excluded expert testimony that offered inadequate support for the every-exposure opinion in similar factual contexts. *See, e.g., McClain*, 401 F.3d at 1243 (excluding expert testimony that any dose of Metabolife could result in serious medical complications because the expert merely stated that “any amount of Metabolife is too much, which clearly contradicts the principles of reliable methodology”); *Moore v. Ashland Chem. Inc.*, 151 F.3d 269, 278 (5th Cir. 1998) (excluding expert testimony that “offered no scientific support for [the] general theory that exposure to Toluene solution at any level would cause RADS”). This refusal to admit the every-exposure opinion in several different toxic tort cases is indicative of the dubious value courts place on the unsupported assertion of the opinion. Asbestos cases are no different.

²⁴ Courts have repeatedly taken a highly skeptical view of the science underlying the every-exposure opinion. *See, e.g., Georgia-Pacific Corp. v. Stephens*, 239 S.W.3d 304, 320–21 (Tex. App. 2007) (“The [plaintiffs’] experts failed to show, however, that the ‘any exposure’ theory is generally accepted in the scientific community—that *any* exposure to a product that contains asbestos results in a statistically significant increase in the risk of developing mesothelioma.”) (emphasis in original); *In re W.R. Grace & Co.*, 355 B.R. 462, 476 (Bankr. D. Del. 2006) (“The use of the no safe level or linear ‘no threshold’ model for showing unreasonable risk ‘flies in the face of the toxicological law of dose-response, that is, that ‘the dose makes the poison. . . .’”); *Bartel v. John Crane, Inc.*, 316 F. Supp. 2d 603, 611 (N.D. Ohio 2004) (“[T]he opinion of Dr. Frank, that every breath [plaintiff] took which contained asbestos could have been a substantial factor in causing his disease, is not supported by the medical literature.”); *Gregg v. V-J Auto Parts, Co.*, 596 Pa. 274, 292, 943 A.2d 216, 227 (Pa. 2007) (labeling the every-exposure opinion a “fiction” and holding that it cannot properly “support the conclusion that the product sold by the defendant was a substantial factor in causing the harm.”).

asbestos exposure addresses only *risk*, and does not even address *causation*, much less prove it. *See Wannall v. Honeywell Int'l, Inc.*, 292 F.R.D. 26, 41-42 (D.D.C. 2013).

The scientific method requires “the generation of testable hypotheses that are then subjected to the real world crucible of experimentation, falsification/validation, and replication.” *Perry v. Novartis Pharm. Corp.*, 564 F. Supp. 2d 452, 459 (E.D. Pa. 2008) (quoting *Caraker v. Sandoz Pharm. Corp.*, 188 F. Supp. 2d 1026, 1030 (S.D. Ill. 2001)). As numerous courts have recognized, the every-exposure opinion simply has not progressed through these steps. *See, e.g., Yates*, 113 F. Supp. 3d at 846 (excluding the theory because “the complainants have not shown that expert testimony and evidence espousing this theory has the sufficient support of facts or data, nor have they shown that it is testable, published in peer-reviewed works, or has any error rate”).

C. Recent Authority Recognizes the Questionable Nature of the Every Exposure Opinion and the Need for a *Daubert* Hearing.

A common argument that plaintiffs often make in response to this issue is that, not only is the every-exposure opinion admissible under *Daubert*, but it is also not necessary for the Court to hold a *Daubert* hearing to address the admissibility of that evidence. Recent authority, however, demonstrates that the every-exposure opinion is specifically the type of testimony that must be subject to a *Daubert* hearing so the Court can fully evaluate the reliability and scientific validity of the proposed testimony. *See Barabin v. AstenJohnson, Inc.*, 740 F.3d 457, 467 (9th Cir. 2014).

In *Barabin*, the United States Court of Appeals for the Ninth Circuit sitting *en banc* reversed a trial court decision admitting the testimony of a Plaintiff’s expert in an asbestos case, Dr. Carl Brodtkin. There, Dr. Brodtkin’s opinions included the every-exposure opinion here at issue. *Id.* at 462. At trial, the *Barabin* defendants moved to exclude the every-exposure opinion testimony offered by Plaintiffs’ experts and, without a *Daubert* hearing, the trial court found the competing theories of causation should be left for the jury to evaluate. *Id.* The Ninth Circuit,

however, reversed, concluding that the district court abused its discretion by abdicating its role as the gatekeeper of scientific evidence and not evaluating the every-exposure opinion testimony under *Daubert*. *Id.* at 467. In line with the *Barabin* opinion, Buffalo would invite the Court, in its discretion, to hold a *Daubert* hearing with respect to this issue so that the Court may hear in greater detail the problems with the every-exposure opinion under Rule 403, Rule 702, and *Daubert*.

CONCLUSION

For all of the above reasons, Buffalo respectfully requests that the Court exclude any opinion testimony from Plaintiffs' experts on the issue of specific causation as to Buffalo, including evidence or argument stating or suggesting the every-exposure opinion. Specifically, Buffalo requests the Court to exclude the reports and testimony of Drs. Brody and Bedrossian with regard to whether and how Buffalo products may have allegedly caused Mr. Haskins's disease specifically, and also with regard to the every-exposure opinion generally. Should the Court determine that it wishes to receive additional evidence and argument on this matter, Buffalo requests a *Daubert* hearing to present the Court with the relevant evidence, science, and legal authorities supporting their requested relief.

Signature page follows

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November 4, 2016

CERTIFICATE OF SERVICE

I hereby certify on this 4th day of November, 2016, a copy of Defendant Air & Liquid Systems Corporation's Daubert Motion to Exclude Specific Causation Opinion Testimony of Plaintiffs' Experts was served by electronic means on parties registered with the District of South Carolina's Electronic Case Filing system. I further certify that a copy of the foregoing, together with a copy of the Notice of Electronic Filing, was served on parties who are not registered to receive a Notice of Electronic Filing for this case, by mailing of a copy of same by United States Mail, postage prepaid.

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